Number of patients with urine culture specimen collected, stratified by age group and surveillance year
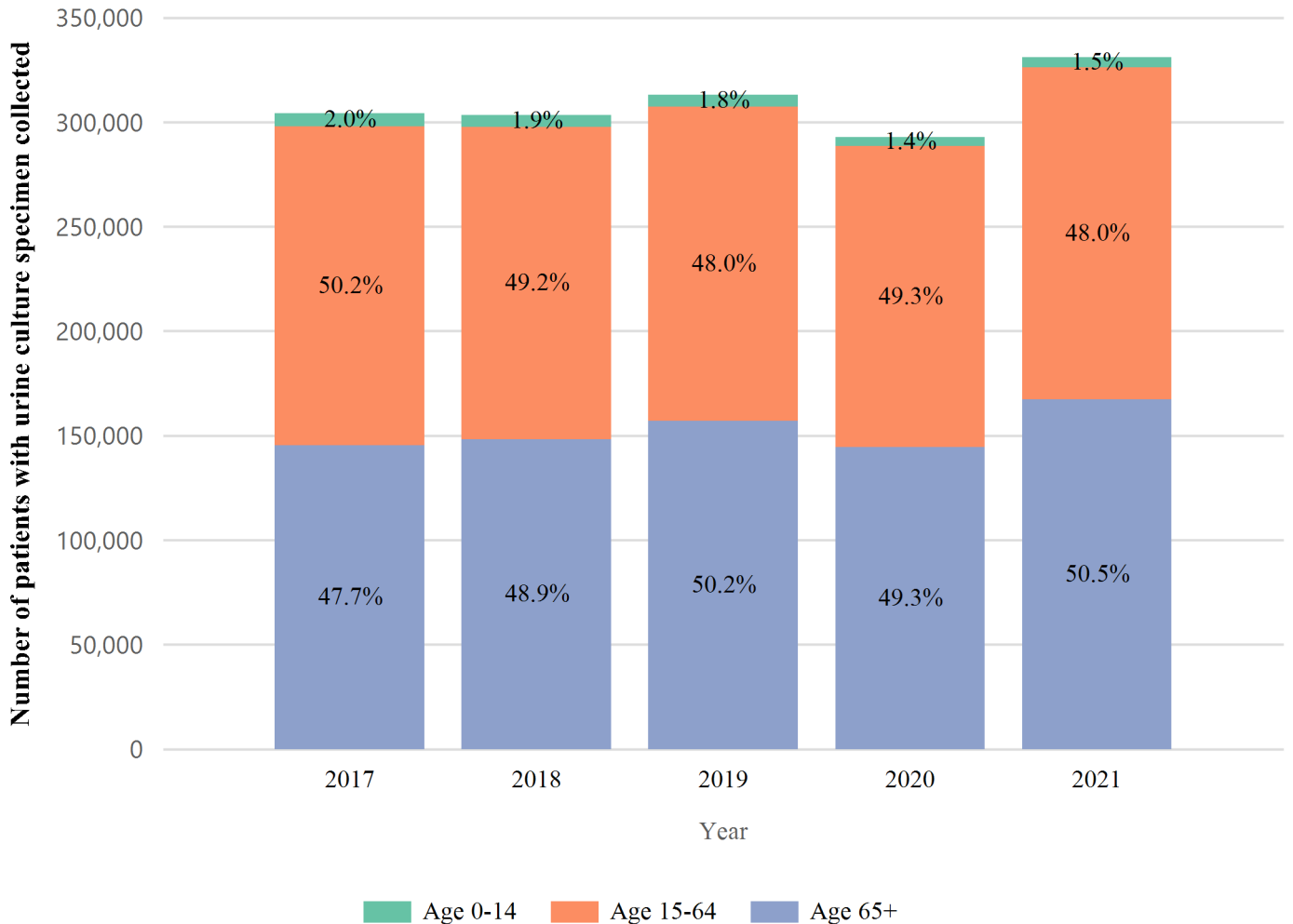
	Age 0-14		Age 15-64		Age 65+		Total	
Year	Patients Count*	%†	Patients Count*	%†	Patients Count*	%†	Patients Count*	%
2017	6,000	2.0%	153,000	50.2%	145,000	47.7%	304,000	100%
2018	6,000	1.9%	149,000	49.2%	148,000	48.9%	303,000	100%
2019	6,000	1.8%	150,000	48.0%	157,000	50.2%	313,000	100%
2020	4,000	1.4%	144,000	49.3%	144,000	49.3%	293,000	100%
2021	5,000	1.5%	159,000	48.0%	167,000	50.5%	331,000	100%

* Patient headcounts were rounded to the nearest thousand
† Percentages were rounded to one decimal place
§ Patient headcount >0 and <500

Number of patients with urine culture specimen collected, stratified by age group and surveillance year

Number of patients with urine culture specimen collected, stratified by age group and surveillance year

	Prevalence of positive urine culture (%) (95%CI)			
Year	Age 0-14	Age 15-64	Age 65+	Total
2017	400 / 6,200	14,200 / 152,700	30,300 / 145,300	44,900 / 304,200
	(6.5%)	(9.3%)	(20.8%)	(14.8%)
	(5.9%-7.1%)	(9.2%-9.5%)	(20.6%-21.0%)	(14.6%-14.9%)
2018	400 / 5,800	14,300 / 149,300	31,300 / 148,300	46,000 / 303,400
	(7.1%)	(9.6%)	(21.1%)	(15.2%)
	(6.5%-7.8%)	(9.4%-9.7%)	(20.9%-21.3%)	(15.0%-15.3%)
2019	400 / 5,600	14,700 / 150,300	33,200 / 157,100	48,200 / 313,000
	(6.5%)	(9.7%)	(21.1%)	(15.4%)
	(5.9%-7.2%)	(9.6%-9.9%)	(20.9%-21.3%)	(15.3%-15.5%)
2020	300 / 4,200	13,500 / 144,200	29,200 / 144,400	43,000 / 292,800
	(6.8%)	(9.3%)	(20.2%)	(14.7%)
	(6.1%-7.6%)	(9.2%-9.5%)	(20.0%-20.5%)	(14.6%-14.8%)
2021	300 / 5,000	14,800 / 158,800	33,300 / 167,300	48,400 / 331,000
	(6.5%)	(9.3%)	(19.9%)	(14.6%)
	(5.8%-7.2%)	(9.2%-9.5%)	(19.7%-20.1%)	(14.5%-14.7%)

Patient headcounts were rounded to the nearest hundred
Percentages were rounded to one decimal place
§ Patient headcount >0 and <50

Number of patients with WHO GLASS priority organism isolated from positive culture specimen, stratified by location of onset

			Year	Year	Year	Year	Year
			2017	2018	2019	2020	2021
Community-onset	Escherichia coli	Number of patient with organism islotated*	24,700	25,000	26,100	23,300	26,200
		Percentage of patient with organism islotated†	65.01%	64.52%	64.21%	64.12%	64.09%
	Klebsiella pneumoniae	Number of patient with organism islotated*	2,600	2,700	3,200	3,100	4,500
		Percentage of patient with organism islotated†	6.81%	6.90%	7.82%	8.63%	10.92%
	Other spp.	Number of patient with organism islotated*	13,900	14,300	14,900	12,900	13,500
		Percentage of patient with organism islotated†	36.41%	36.89%	36.54%	35.44%	32.97%
Hospital-onset	Escherichia coli	Number of patient with organism islotated*	4,300	4,400	4,400	3,800	4,300
		Percentage of patient with organism islotated†	48.14%	46.73%	45.48%	44.68%	44.88%
	Klebsiella pneumoniae	Number of patient with organism islotated*	500	500	600	600	1,100
		Percentage of patient with organism islotated†	5.13%	5.59%	6.51%	7.42%	10.98%
	Other spp.	Number of patient with organism islotated*	5,200	5,500	5,700	5,100	5,200
		Percentage of patient with organism islotated†	58.10%	58.76%	58.96%	59.41%	54.54%
Undifferentiated location of onset	Escherichia coli	Number of patient with organism islotated*	28,100	28,400	29,600	26,300	29,600
		Percentage of patient with organism islotated†	62.51%	61.80%	61.40%	61.19%	61.17%
	Klebsiella pneumoniae	Number of patient with organism islotated*	3,000	3,100	3,700	3,700	5,400
		Percentage of patient with organism islotated†	6.67%	6.77%	7.73%	8.56%	11.09%
	Other spp.	Number of patient with organism islotated*	18,300	19,100	19,800	17,300	18,100
		Percentage of patient with organism islotated†	40.82%	41.40%	41.16%	40.25%	37.41%

* Patient headcounts were rounded to the nearest hundred
† Percentages were rounded to one decimal place. If percentages >0.005% and <0.1%, percentages were rounded to two decimal place
§ Patient headcount >0 and <50

Distribution of WHO GLASS priority organism isolated from positive urine culture specimen, stratified by location of onset

Location of onset	origin	Patient count and percentage				
		2017	2018	2019	2020	2021
Escherichia coli	Community	24700 (85.2%)	25000 (85.1%)	26100 (85.5%)	23300 (86.0%)	26200 (85.9%)
	Hospital	4300 (14.8%)	4400 (14.9%)	4400 (14.5%)	3800 (14.0%)	4300 (14.1%)
	Undifferentiated	28100 (100.0%)	28400 (100.0%)	29600 (100.0%)	26300 (100.0%)	29600 (100.0%)
Klebsiella pneumoniae	Community	2600 (85.0%)	2700 (83.6%)	3200 (83.4%)	3100 (83.2%)	4500 (80.9%)
	Hospital	500 (15.0%)	500 (16.4%)	600 (16.6%)	600 (16.8%)	1100 (19.1%)
	Undifferentiated	3000 (100.0%)	3100 (100.0%)	3700 (100.0%)	3700 (100.0%)	5400 (100.0%)
Other spp.	Community	13900 (72.8%)	14300 (72.2%)	14900 (72.1%)	12900 (71.8%)	13500 (72.1%)
	Hospital	5200 (27.2%)	5500 (27.8%)	5700 (27.9%)	5100 (28.2%)	5200 (27.9%)
	Undifferentiated	18300 (100.0%)	19100 (100.0%)	19800 (100.0%)	17300 (100.0%)	18100 (100.0%)

* Patient headcounts were rounded to the nearest hundred

† Percentages were rounded to one decimal place

§ Patient headcount >0 and <50

Non susceptibility percentage of *Escherichia coli* for different antimicrobials

(Total headcount)*‡¶	Location of Onset	Non-susceptibility %† (95% CI†) (Numerator*/Denominator*)					P-Value**
		2017 (28100)	2018 (28400)	2019 (29600)	2020 (26300)	2021 (29600)	
amoxicillin and beta-lactamase inhibitor	Community	19.7% (19.2%-20.2%) (4900/24700)	19.0% (18.5%-19.5%) (4800/25000)	20.7% (20.2%-21.1%) (5400/26100)	18.3% (17.8%-18.8%) (4300/23300)	18.0% (17.5%-18.5%) (4700/26200)	↓<0.01
Cefuroxime (IV)	Community	24.5% (23.9%-25.0%) (5300/21600)	25.1% (24.5%-25.7%) (5500/21700)	25.2% (24.7%-25.8%) (5700/22500)	24.8% (24.2%-25.4%) (4900/19700)	23.6% (23.0%-24.1%) (5200/22200)	↓<0.01
Cefuroxime (oral)	Community	49.0% (48.4%-49.7%) (10600/21600)	44.2% (43.5%-44.8%) (9600/21700)	41.6% (41.0%-42.3%) (9400/22500)	41.1% (40.4%-41.8%) (8100/19700)	39.9% (39.3%-40.6%) (8800/22200)	↓<0.01
levofloxacin	Community	34.9% (34.3%-35.6%) (6900/19600)	35.0% (34.4%-35.7%) (6900/19800)	40.3% (39.6%-40.9%) (8600/21200)	44.4% (43.7%-45.1%) (8400/19000)	44.4% (43.8%-45.1%) (9500/21500)	↑<0.01
nitrofurantoin	Community	2.6% (2.4%-2.8%) (700/24700)	2.1% (1.9%-2.3%) (500/25000)	2.1% (2.0%-2.3%) (600/26100)	1.8% (1.6%-1.9%) (400/23300)	1.2% (1.1%-1.4%) (300/26200)	↓<0.01
piperacillin and beta-lactamase inhibitor	Community	2.6% (2.4%-2.9%) (500/18700)	2.7% (2.4%-2.9%) (600/21000)	2.5% (2.3%-2.7%) (500/21800)	2.6% (2.4%-2.8%) (500/19000)	2.1% (1.9%-2.3%) (500/21400)	↓<0.01
sulfamethoxazole and trimethoprim	Community	38.5% (37.9%-39.1%) (8700/22700)	37.7% (37.1%-38.3%) (8700/23000)	37.1% (36.5%-37.7%) (9000/24200)	34.8% (34.2%-35.5%) (7500/21500)	32.0% (31.4%-32.5%) (7800/24300)	↓<0.01

* Patient headcounts were rounded to the nearest hundred

† Percentages were rounded to one decimal place

‡ Total headcount refers to annual number of patients with particular organism isolated from blood/urine/stool

§ Patient headcount >0 and <50

¶ Compare with deduplication without consideration on location of onset, number of isolates selected for analysis increases because isolates from both hospital--onset and community--onset was selected for each patient, if available.

†† Since the susceptibility test was performed for less than 70% of isolates, readers should interpret the findings with caution.

** P-value was calculated using Cochran-Armitage Test to examine whether a trend with statistical significance exists, only trends with statistical significance were reported.

Legend: ↑ Increasing trend; ↓ Decreasing trend

Note:

Dataset was de-duplicated with consideration on location of onset.

Proportion confidence intervals were calculated using the Wilson method.

Non-susceptibility percentages calculated from less than 10 isolates (after de-duplication) were excluded from analysis.

Revised fluoroquinolones interpretive criteria for Enterobacteriaceae (except Salmonella spp.) was revised by CLSI in 2019. The increase in 2019 onwards may be contributed by the change in CLSI criteria.

Revised colistin interpretive criteria for Acinetobacter spp. was released by CLSI in 2020. The increase in 2020 onwards may be contributed by the change in CLSI criteria.

Non susceptibility percentage of *Escherichia coli* for different antimicrobials

| (Total headcount)*‡¶ | Location of Onset | Non-susceptibility %† (95% CI†) (Numerator*/Denominator*) | | | | | P-Value** |
		2017 (28100)	2018 (28400)	2019 (29600)	2020 (26300)	2021 (29600)	
amoxicillin and beta-lactamase inhibitor	Hospital	28.6% (27.2%-29.9%) (1200/4300)	26.9% (25.6%-28.2%) (1200/4400)	27.8% (26.5%-29.2%) (1200/4400)	27.8% (26.4%-29.3%) (1100/3800)	28.7% (27.3%-30.0%) (1200/4300)	-
Cefuroxime (IV)	Hospital	33.7% (32.3%-35.2%) (1400/4300)	33.6% (32.2%-35.0%) (1500/4400)	34.5% (33.1%-35.9%) (1500/4400)	33.1% (31.7%-34.7%) (1300/3800)	32.8% (31.4%-34.2%) (1400/4300)	-
Cefuroxime (oral)	Hospital	59.4% (57.9%-60.8%) (2600/4300)	54.6% (53.1%-56.0%) (2400/4400)	52.1% (50.6%-53.5%) (2300/4400)	50.9% (49.3%-52.5%) (1900/3800)	51.0% (49.5%-52.5%) (2200/4300)	↓ <0.01
levofloxacin	Hospital	41.7% (40.0%-43.4%) (1300/3100)	41.8% (40.1%-43.5%) (1300/3200)	44.2% (42.6%-45.9%) (1500/3300)	45.8% (44.0%-47.6%) (1300/2900)	46.2% (44.5%-47.9%) (1500/3200)	↑ <0.01
nitrofurantoin	Hospital	3.7% (3.2%-4.3%) (200/4300)	2.4% (2.0%-3.0%) (100/4400)	2.2% (1.8%-2.7%) (100/4400)	1.7% (1.3%-2.2%) (100/3800)	1.3% (1.0%-1.7%) (100/4300)	↓ <0.01
piperacillin and beta-lactamase inhibitor	Hospital	5.4% (4.7%-6.2%) (200/3600)	5.1% (4.5%-5.8%) (200/4200)	4.2% (3.6%-4.8%) (200/4200)	5.1% (4.4%-5.9%) (200/3600)	4.8% (4.2%-5.5%) (200/4100)	-
sulfamethoxazole and trimethoprim	Hospital	46.7% (45.2%-48.3%) (1900/4000)	45.6% (44.1%-47.1%) (1900/4100)	45.4% (43.9%-46.9%) (1900/4200)	43.9% (42.3%-45.6%) (1600/3500)	40.6% (39.1%-42.1%) (1600/4000)	↓ <0.01

* Patient headcounts were rounded to the nearest hundred

† Percentages were rounded to one decimal place

‡ Total headcount refers to annual number of patients with particular organism isolated from blood/urine/stool § Patient headcount >0 and <50

¶ Compare with deduplication without consideration on location of onset, number of isolates selected for analysis increases because isolates from both hospital--onset and community--onset was selected for each patient, if available.

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